

The type of *Ortalis nubila* is from "Brasilien"; that of *Epiplatea gracilis* from Allende (Coahuila), Mexico. Hendel in 1909 noted specimens from Cuba (Habana), Hispaniola (Santo Domingo), Brazil (Iguapé), and Paraguay. Material in the U.S. National Museum is from Cuba (Habana; Santiago de las Vegas); Mexico (Allende [type of *gracilis*] and Matamoros, *ex larva* from ears of green corn, Coahuila; Nogales, *ex green corn ear*, and Valle del Yaqui, Sonora); Guatemala (Antigua, corn and teosinte [Painter]; Chimaltenango, on "cornus"; Guatemala City; Puerto Barrios); Nicaragua (San Marcos); Costa Rica (Paso Ancho. San Sebastian, "coix mayaca"); Trinidad (St. Augustine, *ex maize cob*); Venezuela (Antímano; El Valle, in stalks of *Zea mays* L., mining near the crown); Peru (Canete, on corn); Brazil (Nova Teutonia, S.C.; São Paulo, scavenger in *Diatraea* tunnel; also from the United States (Brownsville, *ex pupae* from corn, and San Antonio, 31 Oct. 1905, Texas).

A NEW GOMPHINE DRAGONFLY FROM EASTERN TEXAS

(ODONATA: GOMPHIDAE)

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The pine-woods area just north of Houston, Texas, has been found during the last six years to have a very rich Odonata fauna. Three previously undescribed species have recently been taken there: a *Somatochlora* and an *Enallagma* (both described recently in this journal), and a new *Gomphus* belonging to the subgenus *Hylogomphus* as defined by Needham (1951). The *Enallagma* and *Somatochlora*, as well as *Gomphus maxwelli* Ferguson, appear to be confined to this portion of Texas (including in the latter case an unpublished record from adjacent Louisiana). However, the new *Gomphus* may turn out to range more widely, though in our area it is confined to one small stream.

Gomphus apomyius, n. sp.

Holotype male. *Head*.—Face and occiput yellow, vertex black. Postocellar ridge sinuous, not reaching lateral margins of ocelli. Occipital ridge convex, smooth, with a fringe of black hairs.

Prothorax.—Fore lobe erect, pale. Mid lobe with paired mesal pale spots and obscurely pale lateral extremities. Hind lobe entire, dark.

Pterothorax.—Dark brown, yellow as follows: dorsal stripes expanded downwards and broadly confluent with pale collar, which is itself interrupted narrowly by the mid-dorsal carina; obscure thin antehumeral stripe expanded above into rounded triangular spot which is narrowly separated from the dorsal stripe; mesepimeron except for edges, including a stripe on the humeral suture; metepisternum obscurely pale centrally, grading imperceptibly towards darker stripes covering first and second lateral sutures; metepimeron except for obscurely dark stripe in second lateral suture.

Wings.—Venation black, typical for subgenus. Gaff very slightly shorter than inner side of triangle.

Legs.—Black, fore femur bright yellow and mid femur obscurely yellow internally.

Abdomen.—Dark brown, yellow as follows: sides and mid-dorsal lines on 1, 2, and 3 proximad to the lateral carina; proximal lateral spots and mid-dorsal spots narrowed apically on 4 to 7; margins of terga of 7 to 9, this color expanded on 8 and 9 to reach nearly half way to mid line.

Appendages.—Black. The superior appendages terminating in a slightly rounded, narrowed point, and having a ventral-apical, right-angled low tooth. Inferior appendage terminates in a small dorsal hook. Caudal margin of this appendage rounded in dorsal view.

Genitalia.—Anterior hamules expanded terminally and having a square end, with little development of an apical tooth; edges rolled to form a squared "C" in cross section, with three very small internal apical teeth. Posterior hamules with prominent shoulder and recurved apical hook and three small teeth between shoulder and this hook. Penis of short type, with prominent vesicle, which is of bilobate type (Walker, 1957) but with lateral diverticula and shallow median cleft very reduced.

Allotype Female. Color pattern as in male, except for small pale spots behind lateral ocelli, and greater extent of yellow on abdomen: dorsal spots on 3 to 5 extend the length of the segment as narrow lines. Face with short, thick spines extending laterally from lateral ocelli. Postocellar ridge lower than in male, sinuous and tripartite, with raised shorter central and longer terminal portions. Occipital ridge straight, with fringe of black hair. Vulvar lamina extending half the length of the ninth segment, flattened, with tips divergent.

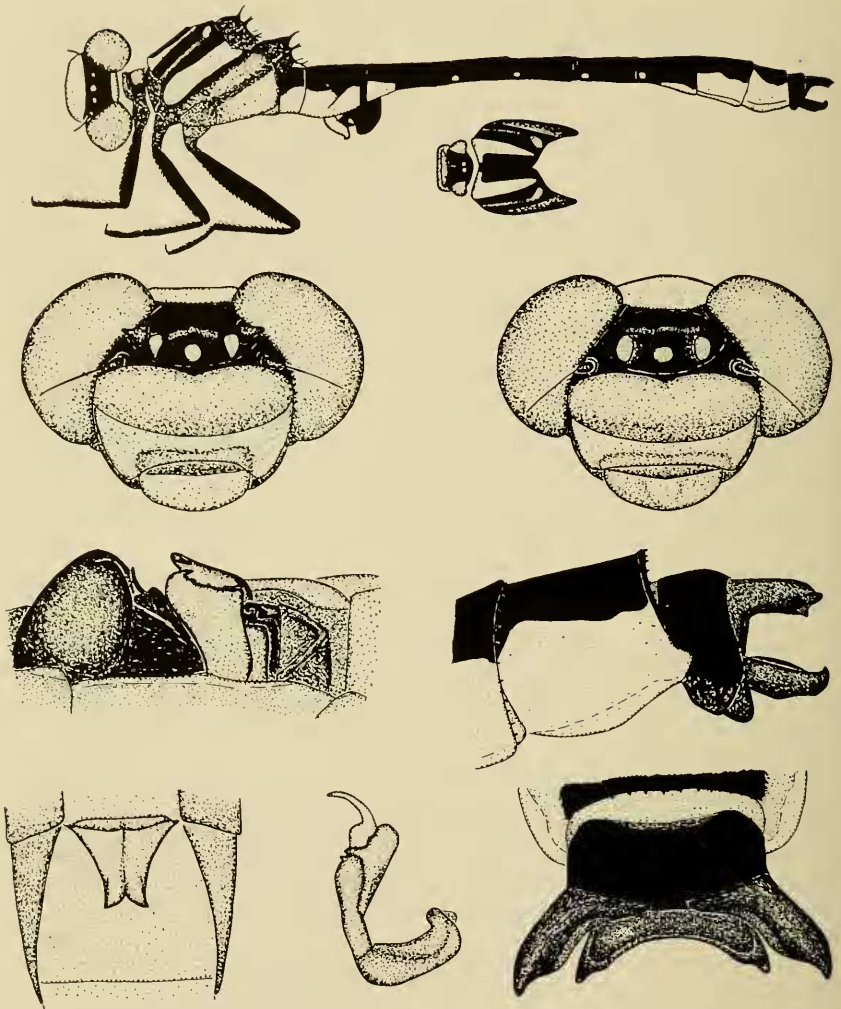
Dimensions.—Holotype male: abdomen 28 mm, hind wing 25 mm. Allotype female: same dimensions.

Variations among type series.—The 20 males show little variation, except that the twelve reared specimens tend to be more vividly colored than the eight more mature males caught in the imaginal state. Eight of the twelve reared specimens have very pale or more distinct spots behind the lateral ocelli, as in the females. Two of the eight more mature males have very pale spots; these spots undoubtedly disappear with maturity. Dimensions range from 26 to 28 mm (abdomen) and from 23 to 25 mm (hind wing).

The four females examined show very little variation and range in size from 27 to 28 mm (abdomen) and from 24 to 25 mm (hind wing).

Material examined.—All specimens were taken at Big Creek, 2 mi. west of Shepherd along state highway 150, San Jacinto Co., Texas. Holotype: collected 7 April 1963. Allotype: reared, emerged 9–11 March 1962. The remaining specimens were either collected along with the holotype or reared, emerging 20 March 1961, 6–16 March 1962, or 20–21 March 1963. A teneral male not included in the type series was collected on 18 March 1962 by Robert Cumming and prepared for cytogenetic examination. Three additional reared specimens from the 1962 lot were given to a fellow worker and have not been available for inclusion in the type series.

The Holotype and Allotype have been deposited in the University



Gomphus apomyius, n. sp. Upper: lateral view of male, showing color pattern with inset showing thoracic dorsum. Second row: faces of female (left) and male (right). Third row: ventro-lateral view of male genitalia of second segment (left), lateral view of male appendages (right). Fourth row: ventral view of female vulvar lamina (left), lateral view of penis (center), and dorsal view of male appendages (right).

of Florida collection, and Paratypes have been deposited in the U.S. National Museum, Academy of Natural Sciences, and University of Michigan collections.

The new species *apomyius* appears to be most closely related to *parvidens* Currie (1917), of which only the male has been fully de-

scribed. The principal difference between these species is in the form of the superior appendage of the male, which in *parvidens* has a distinctly acuminate termination with a small, acute ventral tooth. The genitalia of the 2nd segment are very similar, differing principally in the more prominent shoulder of the posterior hamule of *apomyius*. The thoracic pale color of *parvidens* is far more restricted, and in spite of the variability of this character within the Gomphidae this difference would appear also to be a valid criterion for separation. Males and females of the new species are structurally abundantly distinct from *abbreviatus* Hagen, *brevis* Hagen and *viridifrons* Hine, as a glance at Currie's (1917) and Needham and Westfall's (1955) illustrations will show.

More problematical is the relationship between the new species and some other *Hylogomphus* which have been taken during the last decade in Florida (Westfall, personal communication), and in North Carolina and New Jersey by the author. The author's specimens were loaned several years ago and have not been available for inspection. However, some brief notes indicate that the new species may prove to be very similar to one which the author took in abundance in New Jersey. These other *Hylogomphus* remain undescribed.

As most of the specimens were reared, little is known of the habits of the mature insects, though their behavior is probably typical for the subgenus. Nymphs were found in abundance in a small, sandy stream flowing through pine woods near Shepherd, Texas. Although the stream is monotonous in character, 46 species of Odonata have been taken within a few miles along the stream, including several other species of *Gomphus* s. lat.: *G. (Stylurus) lauræ* (Williamson), *G. (Gomphus) lividus* Selys, *G. (Gomphus) oklahomensis* Pritchard, *G. (Gomphurus) modestus* Needham, and *G. (Arigomphus) maxwelli* Ferguson. The nymph of the new species, as well as some of the others mentioned above, will be described in a separate paper devoted to the fauna of this area.

The specific name, meaning, "one who drives away flies," is very appropriate for this small but aggressive dragonfly.

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